



CIVIL AIR PATROL  
National Headquarters  
Maxwell AFB AL 36112-6332

CHANGE 1 (E)  
CAP REGULATION 66-1  
12 January 2001

## **Aircraft Maintenance**

### **CIVIL AIR PATROL AIRCRAFT MAINTENANCE MANAGEMENT**

CAP Regulation 66-1, 1 February 2000, is changed as follows:

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**Note: Shaded areas identify new or revised material.**

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OPR: LGM

Distribution: In accordance with CAPR 5-4.



1) Engine changes, engine top-overhauls, and cylinder repair/replacement.

2) Propellers and prop governor overhauls.

3) New avionics package upgrades.

Note: Individual avionics or instrument component repair or replacement is not reimbursable with appropriated funds. Main stack avionics repair/replacement is eligible for the radio exchange program funded from the CAP Aircraft Modernization Program (CAMP) account). A NHQ CAP/LGM control number is required. These exchanges shall be handled through the CAP Supply Depot.

4) Exterior paint (pictures required.)

5) Interior refurbishment (pictures required.)

**b. Eligibility for Reimbursement.** For major maintenance to be eligible for reimbursement, a copy of the following must be on file at HQ CAP/LGM:

1) Current CAPF 37, *Shipping and Receiving Document*.

2) Aircraft photographs reflecting the current condition from spinner to tail, interior, and avionics panel.

**c. Approved Reimbursement.** The wing maintenance officer or commander uses the *Aircraft Major Maintenance Reimbursement Request* form at Attachment 2 to initiate reimbursement for major maintenance. The reimbursement request form shall be forwarded to the wing liaison office for indorsement, and then forwarded to NHQ CAP/LGM. The requesting wing shall indicate clearly on the request form whether payment should be made to the wing or the vendor. The cost of any parts ordered from the CAP Supply Depot should also be clearly shown on the request form so that those funds can be obligated as required by HQ CAP-USAF/FM. Authorized or approved major maintenance items will have a NHQ CAP/LGM control number assigned. Maintenance shall not be performed prior to issuance of the control number from NHQ CAP/LGM. Once authorized, LGM will fax the control number to the requester. The control number will be valid for 90 days. After the 90-day period, the control number will be automatically cancelled unless an extension has been requested in writing. The requested maintenance actions shall be accomplished expeditiously and the original invoice mailed, within 90 days, to NHQ CAP/LGM for payment.

**d. Items not Reimbursed.** The following items or maintenance actions are not reimbursed by NHQ:

1) Minor or preventive maintenance.

2) Major maintenance performed without prior authorization or approval from NHQ CAP/LGM.

**e. Approved Hull Self Insurance Reimbursement.** Inspection and repair of damages resulting from an incident or accident are reimbursable from the CAP HSI Fund. See CAPR 900-6, *Hull Self Insurance (HSI)*, for reimbursement procedures.

**13. Automotive Fuel (MOGAS).** The use of automotive fuel (MOGAS) in corporate aircraft is prohibited.

**14. Financial Accounting.** To assure availability of funds for corporate aircraft maintenance, provide for aircraft replacement, and prevent depletion of the corporate aircraft inventory, regions (with aircraft assigned) and wings shall, in accordance with CAPR 173-2, *Financial Procedures for CAP Regions and Wings*, and CAPR 173-3, *Payment for CAP Support*, establish an account for recording the receipts and disbursements of funds associated with aircraft maintenance. The region or wing shall designate the system for payment or credit, to include the amount for each corporate aircraft flight hour.

**a. Determining Flying Hour Costs.** The high cost of maintaining an operational fleet of aircraft necessitates sound management at all levels of command. Each wing/region should set a goal to get the most from their assigned aircraft within the restrictions of available income, whether this income is derived from federal funds, state funds, or private donations. All routine maintenance costs accrued in maintaining CAP corporate aircraft are the responsibility of the wing or region to which the aircraft is assigned.

1) Two kinds of costs must be considered when evaluating aircraft operation to determine what hourly charge should be established for CAP members:

**a)** Fixed costs are those costs that occur regardless of the number of hours flown. For example, hangar storage fee, tie-down fee, annual inspection, etc.

**b)** Variable costs are those costs that result directly from flying. For example, costs for engine repairs, 100 hour inspection, fuel, oil, etc.

2) To compute the hourly cost of flying an aircraft divide the total annual fixed costs by the estimated total number of flying hours for the year. Add this to the variable costs for flying the aircraft 1 hour. Cost figures available from the manufacturer may assist in this determination. Every effort shall be made to assure all costs are included in the computation, and the estimated flying hours will be attained or exceeded.

**b. Establishing Flying Hour Charges.** Based on the above cost factors, each region/wing will establish CAP member flying rates by aircraft types. Accurate records of aircraft engine hours by mission symbol shall be maintained by the units and submitted to the wings monthly. Many wings receive varying amounts of support from state funds; therefore, flying hour charges may vary considerably. Wings shall establish a system that provides credit to a unit for wing directed missions, and other missions for which payment cannot be expected. The amount and type credit shall be determined and specified by the wing. A minimum quarterly payment for each aircraft should be set whereby units will be encouraged to fly each aircraft at least the corporate minimum flying hours. The payment should be based on the minimum of 200 flying hours per year, times the established hourly rate, with the unit negotiating for adjustment when an aircraft is in a non flying status for 30 days or more.

**15. Storage and Tie-Down.** Region and wing commanders are responsible for assuring that all possible preventive measures are taken to safeguard corporate aircraft from wind and weather damage. Aircraft should be kept in a hangar whenever possible. Aircraft parked in the open shall be tied down at the three approved tie-down points (wings and tail) and securely chocked to prevent wind damage. The control lock shall be installed. Aircraft in extended outside storage shall be tied at four points (nose, wings, and tail.)

**a. Tie-Down Anchors.** There are many methods of anchoring tie-downs. Satisfactory tie-down anchors may be constructed as shown at Attachment 3. Variations may be necessary when local conditions dictate.

**b. Tie-Down Ropes.** Tie-down ropes with tensile strength of 3,000 pounds or greater shall be used. Nylon or dacron tie-down ropes are recommended. Refer to Attachment 3 for rope specifications.

**c. Tie-Down Chains.** Chains shall not be used directly from aircraft mooring points to an anchor point because of excessive impact loads on wing spars. When chain tie-downs are used, they shall be attached to wire rope anchors as depicted in Attachment 3. Wire rope anchors are constructed of two continuous lengths of parallel wire rope passed through the anchor points. The tie-down chains shall be attached to the wire rope with round pin galvanized anchor shackles. This allows the chains to float along the wire rope to reduce impact loads. Chain links used for tie-down must be at least 5/16-inch steel and a proof load of 2,720 pounds and breaking load of 5,440 pounds. All fittings must be equally as strong and chains should be secured without slack.

**d. Spoilers.** In high wind areas, the use of sandbags, or spoiler boards as described in FAA advisory circular 20-35C, are recommended.

**16. Transfer and Disposal of Aircraft.** When aircraft condition and/or utilization falls below the desired standards of 200 hours per aircraft per year based on region average, the wing commander, region commander, or NHQ may reassign or dispose of the aircraft to assure maximum use of CAP resources (reference CAPR 67-4, *Acquiring, Reporting, and Disposing of Corporate Aircraft* and CAPM 67-1, *CAP Supply Manual*.)

**a. Wing Logo and Tail Flash.** Aircraft being reassigned to another wing shall have all wing logo and tail flash markings, if installed, removed prior to transfer.

**b. Wing Equipment and Survival Gear.** Aircraft being reassigned to another wing shall have all wing equipment, tie-downs, and survival gear removed before transfer is complete.

#### **17. References:**

- a.** FAR Part 43, 91, and 39
- b.** Advisory circulars (ACs):
  - 1)** AC 20-5G, *Plane Sense*
  - 2)** AC 20-35C, *Tie-Down Sense*
  - 3)** AC 39-7C, *Airworthiness Directives*
  - 4)** AC 43-9B, *Maintenance Records*
- c.** General aviation inspection aids
- d.** Applicable manufacturer's maintenance manuals and overhaul instructions
- e.** Manufacturer's service bulletins
- f.** FAA airworthiness directives

#### **3 Attachments**

- 1.** Approved CAP Aircraft Markings and Paint Scheme
- 2.** Aircraft Major Maintenance Reimbursement Request
- 3.** Tie-Down Rope and Chain Illustration

#### **SUMMARY OF CHANGES**

Clarifies the terms airworthiness standards, major repairs and alterations, preventive maintenance, and unauthorized alterations. It also clarifies requirements for aircraft inspections, corrosion control, engine prop, SOAP, carbon monoxide detectors, and aircraft disposal and transfer. It adds additional reference to Federal Aviation Regulation/Aeronautical Information Manual (FAR/AIM) (99 version). It also adds requirements for external identification plate, progressive inspection, decal explanation to paint diagram, and survival kit. It deletes reference to Air Force and DoD technical orders. Reimbursement request form modified.